

# America Brings New Foods From Many Lands

By AARON HARDY ULM

"WHY so many cultivated plants?" we wonder as we turn the alluring pages of a seedman's or nurseryman's catalog. Then we select for our gardens or orchards a few of the stand-bys our parents or grandfathers used to grow and consider ourselves very enterprising.

Despite the multitude of edible articles that come from our soil and are displayed in our markets, the constant wail of the housewife is, "Oh, for something new to cook!"

The United States Government is constantly beseeching farmers and gardeners and fruit-growers to try out new things in food plants. The worth of many of them has been proved by long experiments and if they were grown as freely as they might be the housewife's problem of variety for the table would be much lightened.

During the past twenty-five years there have been brought into the United States, under government auspices, nearly 50,000 varieties of foreign seeds and plants for test with the view of Americanization. And yet the possibilities afforded by the plant life of other countries have scarcely been skimmed by our investigators. Government plant explorers are today wandering through fields and forests of several foreign lands looking for new specimens that offer promise. Missionaries and diplomats, consular and naval officers, as well as private travelers help to procure new specimens, some of which have revolutionized agriculture in big areas of the country. Few subjects are being given more aggressive attention, for the constructive thought of the world was never before so concentrated on making the daily ration of human beings more secure, cheaper and more healthful.

The quest leads along many routes of science and economy, for it involves equations that until recent years were unknown and others that are yet but partly divined.

When the caloric theory of foods was established, we learned that many rare viands—porterhouse steak, for example—were of less essential worth than some very common dishes, beans, for instance.

Then it was found that calories are not all; for the little known vitamins and the mineral salts are of just as much importance in sustaining life and health as are heat units.

Heightening the efficiency of plants is the purpose of the plant explorer and plant breeder, and in pursuit thereof they are scouring all the continents and wearying through periods of decades with experiments in development and adaptation.

For there are thousands of acres in this and other countries that are not doing their best for mankind, and in many instances nothing at all, for the reason that the plant life growing upon them is not the most suitable for their soils and climates.

The task of finding or evolving the right plants for every acre of available soil and for our dietary needs is a world undertaking of the most romantic nature.

For Americans, the work is carried on in great part, though by no means wholly, by or under the auspices of the government.

In Washington there is a clearing house for plant immigrants. It is known as the Office of Foreign Seed and Plant Introduction, a branch of the Bureau of Plant Industry, United States Department of Agriculture. Arriving there monthly are about one thousand would-be Americans from all parts of the globe. After being classified they are sent to a station in Maryland that acts as the Ellis Island of plant immigrants. There, in sealed rooms of cement, they are subjected to careful physical examinations to determine if they are diseased; for against plant diseases there is a stricter quarantine than against the human.

If they pass the physical examination, the immigrants are sent to field stations, of which there are five, and subjected to growing tests. If those tests indicate that they are desirable additions to our plant life, specimens are distributed among plant breeders for practical propagation; and the fruitings are passed along to consumers for test or popularization as food.

Many do not pass all the tests of Americanization; then many do, with resulting additions to farming opportunities and to the cheapness or variety of American grown products.

Thus came the date palm from the valley of the Euphrates. Thousands of them are beginning to bear in the Coahuila and Imperial valleys, California, and in a few years American dates, superior to the imported, will be available throughout the country.

Thus came also Pima cotton, a long staple variety, evolved from Egyptian strains, and now luring millions of wealth from southwestern lands that twenty years ago were desert.

In large part the Smyrna fig, now thoroughly domesticated, came in that way, though George C. Roeding, a private individual, is conceded chief credit for its introduction.

Thus came the dasheen, the first carload of which reached New York the other day and helped relieve the potato shortage.

Thus came durum wheat, which is now being grown to the extent of \$50,000,000 worth annually on lands not well suited to the older wheat varieties, which haven't as high dietary value.

And thus have come numerous other things with names that to average American ears sound strange, as in appearance they are to average American eyes—like the petai, or Chinese cabbage; the udo and the mitsuba, vegetables that are as common in Japan as celery and asparagus are with us; and the chayote, a squash-like vegetable from Central America that grows on handsome perennial vines.

Undergoing experiment are scores of others, like a

blackberry vine from Columbia that bears fruits the size of pullets' eggs; fruit trees just received from Africa that are unknown even to the written botanics; bamboos that send up shoots that sometimes grow as fast as three feet a day and to the Chinese are a food of unexcelled popularity; persimmons that in their native Orient grow as big as grape fruit; jujubes, the fruit of which when processed is as good as Persian dates, and the pistache nut tree from Greece.

And for the animals which we must also feed, they have brought in Rhodes and Sudan grass from Africa; the speckboom, a favorite food of African elephants; the Kudzu, a new grass from Japan, and various other



A date palm orchard in Southern California, where date culture developed from specimens brought from Arabia and Egypt is now an established industry.

forage plants that in many areas fare better than our native species.

To get such things, wandering scientists have searched out-of-the-way places in many lands. One, Frank N. Meyer, traveled 8,000 miles through China, Siberia, Russian Turkestan, Korea and Tibet. David Fairchild, who directs the work, and Barbour Lathrop, a private citizen who suggested its establishment on the present basis, spent three years, at Mr. Lathrop's expense, touring the globe in search for new plants which the government might help to propagate. Other men have been through Russia, and in Africa, where two now are, and in Central and South America, which are now being searched again.

The plant explorer's adventures are numerous, for he cannot follow the beaten tracks of travel. Frequently he is suspected by superstitious natives, often in sections never before visited by white men. Meyer was once lined up to be slain but talked his way out. He finally lost his life in line of duty. While hemmed up in interior China, his health broke down and when getting out he disappeared from a Yangtze river boat and was drowned.

Sometimes great diplomacy and ingenuity must be used in procuring samples of plants. Some people still hug the delusion, it seems, that they can conserve their own selfish interests by restricting the distribution of some plant that is valuable to them. Four or five centuries ago the Dutch, who then controlled the East Indian trade, tried such tactics with the pepper plant, whose growing they limited, even to the extent of cutting down one-half the trees in territories they controlled. The exorbitant increase in prices that resulted caused London merchants to enter into a co-operative trading arrangement that led to the development of the great East India Company, with all that it meant to the British Empire.

While we seek to get from others whatever we desire, we also freely give to other peoples anything of ours which they may need. In fact, the United States Office of Foreign Seed and Plant Introduction is a world as well as a domestic clearing house, through which exchanges are made with other governments and with botanists and plant breeders throughout the world.

"The giving of a new food plant does not rob the giver, but enriches instead the neighbor and makes him a better purchaser," says Dr. Fairchild.

Many of our distinctive plants are being or have been established in other lands, to the great benefit or enjoyment of their peoples. They point out to you in Washington City, for example, long rows of flower-

ing Japanese cherries, sent to us by the Mayor of Tokio, who in turn points out with equal pride long rows of American dogwood, sent him in return.

While plant distribution has been under way veritabily since the beginning of time, and virtually all of our cultivated plants are of immigrant origin, the standardization of the process has disclosed the fact that it is far, far from complete. In other lands there grow hundreds of plants that may yet prove valuable additions to our farms, and vice versa we have many that other peoples need.

"The food producing possibilities of Mother Earth have only been scratched," says Dr. Fairchild, "for we have only just begun to study in a modern way the performances of different plants."

"Can anyone tell why cassava will never compete with corn as a food or why the avocado should not rival the orange as a table delicacy, or why Oriental persimmons should not be eaten fresh or dried by millions in the South or why the prickly pear, which will keep a year without spoiling, should not become an important article of commerce?"

"The tomato, as you know, was scorned as a poisonous nuisance until about a half century ago. The grape fruit was almost unknown as a food until a quarter of a century ago. Our farmers knew nothing of the sorghums, those invaluable immigrants from Africa, until within the last forty or fifty years."

In South America you hear as a common saying that no meal is complete without the avocado. It is one of the few fruits that, like the date, is of high caloric worth, being 30 per cent vegetable oil. A practically complete meal can be made on avocado alone.

In Central America a hatful can be bought for a dime; in a few years, I am assured, Southern Florida will be producing them in such quantities that they will be as cheap in America as grape fruit.

And there are other fruit-foods that promise quite or nearly as well, such as the mango, superlative tree fruit, now, like the avocado, being developed on wide scale in our sub-tropics.

The jujube, from China, will grow in more northerly areas, and prefers those of alkaline and drouth where few of our native fruits will prosper. It is expected to establish fruit culture in wide districts that now have virtually none.

The Oriental persimmon, aristocratic kinsman of our own lowly but by no means to be scorned native species, will grow freely in many sections of the United States.

Introduction of new fruits is not always handicapped by that most reactionary of our five senses—taste. A good fruit is almost universally liked; not so with good vegetables.

"I don't like it," or "My family won't eat it," or "I'd rather cook what I am used to," are the reactionisms that are perhaps the greatest obstacles to the introduction of foods that are absolutely new no matter how potentially valuable they may be.

Only two species of animals, I am informed, have the nerve and wisdom to try out anything in the way of new food. They are the cat and the rabbit. Stefansson's dogs that were accustomed to eating seal meat went without food for days before they would touch caribou, and others used to caribou almost starved before they would eat seal meat.

Human beings are as perverse. Thousands of half-starved Europeans refused absolutely to eat bread made of our corn meal until it was camouflaged with other materials.

Psychologists and physiologists say that idiosyncrasies of taste should never be encouraged in children; that they should be given only what they ought to have, so that later in life they won't be haunted by absurd "I-don't-like-its."

Plant explorers, who by forced experience as well as design learn the value of all foods, say that we should go that principle one better. While supporting schools for training children to best use their eyes, hands and ears, we should also train them to make best possible use of their senses of smell and taste.

"Though change, by necessity, is slow," says Dr. Fairchild, "it is ever under way. It is our duty to facilitate and guide it along the lines of greatest dietary and economic advantages. We'll not always eat the foods we do now. Some are very costly, considering their integral worth, some are not easily digested, and many can be displaced by others that may be grown more cheaply and are of higher dietary worth."

"It won't be long before we shall have a population of a half billion people in this country, and the trend of economics is steadily changing adversely to food production, the ratio between rural and urban workers rapidly favoring the latter. Never before was it so important for us to find ways for making every growing acre do its best."

"It is demonstrably easier to find new crops for different soils and climates than to change those soils and climates. There are more available food crops than the average person imagines exist in the world."

"It is the business of the plant explorer and breeder to find and adapt them when possible, even in advance of crying need for them."

"Anybody who is doubtful of the future food supply will be reassured by listening to any one of the enthusiasts in the Department of Agriculture, who will tell you that our food reservoir is by no means limited to the Great Plains area."

"One of the first great objects of the work of plant introduction is to get the farmers of the country to realize that there are many more kinds of farming than they dreamed possible, that new kinds are coming into existence all the time and that there is no reason why the kinds should not be rapidly increased."